

# D35XB80

## Bridge Diodes

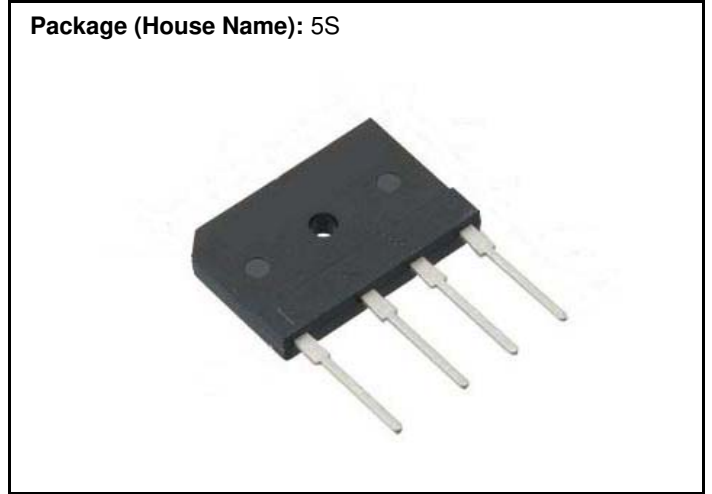
800V, 35A

### Feature

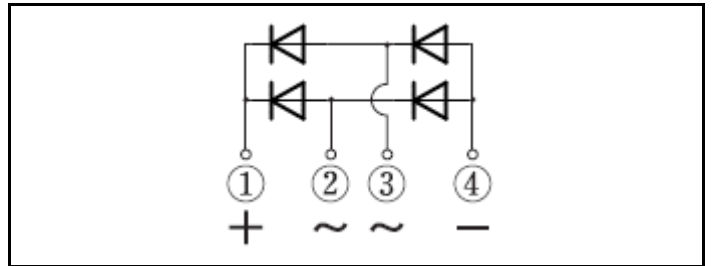
- Compact SIP
- UL E142422
- High Current
- High heat dissipation
- Pb free terminal
- RoHS:Yes

### OUTLINE

Package (House Name): 5S



### Equivalent circuit



### Absolute Maximum Ratings (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T <sub>stg</sub>		-55 to 150	°C
Junction temperature	T <sub>j</sub>		-55 to 150	°C
Repetitive peak reverse voltage	V <sub>RRM</sub>		800	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, With heatsink, T <sub>c</sub> =93°C	35	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On glass-epoxy substrate, T <sub>a</sub> =25°C ※	3	A
Surge forward current	I <sub>FSM</sub>	60Hz sine wave, Non-repetitive 1 cycle peak value, T <sub>j</sub> =25°C	603	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, T <sub>j</sub> =25°C	550	A
Current squared time	I <sup>2</sup> t	1ms ≤ tp < 10ms, T <sub>j</sub> =25°C, per diode	1512	A <sup>2</sup> s
Dielectric strength	V <sub>dis</sub>	Terminals to case backside, AC 1 minute	2.5	kV
Mounting torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

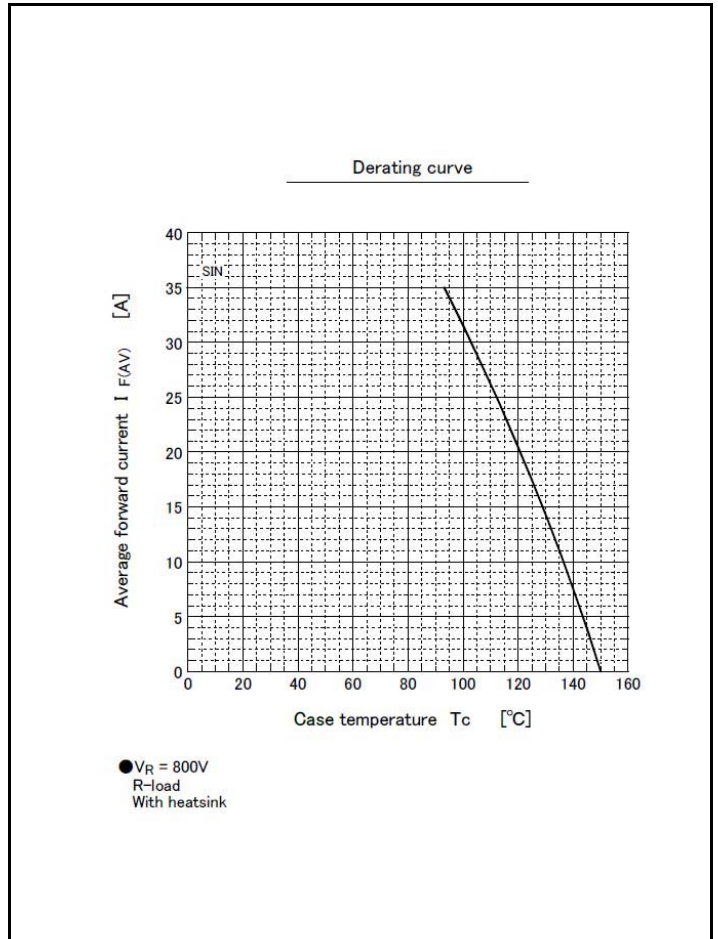
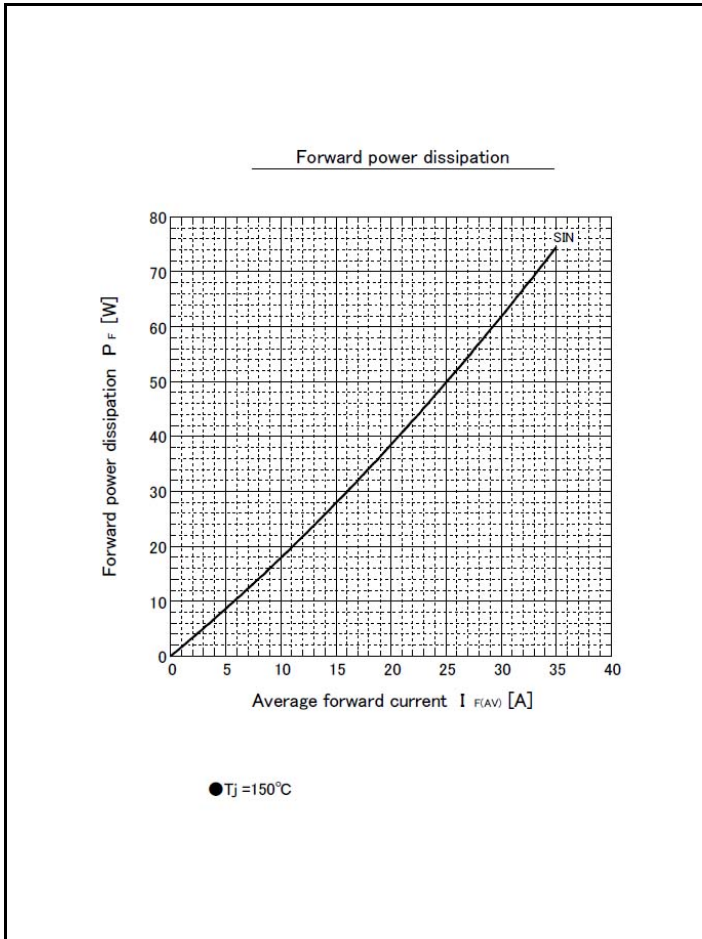
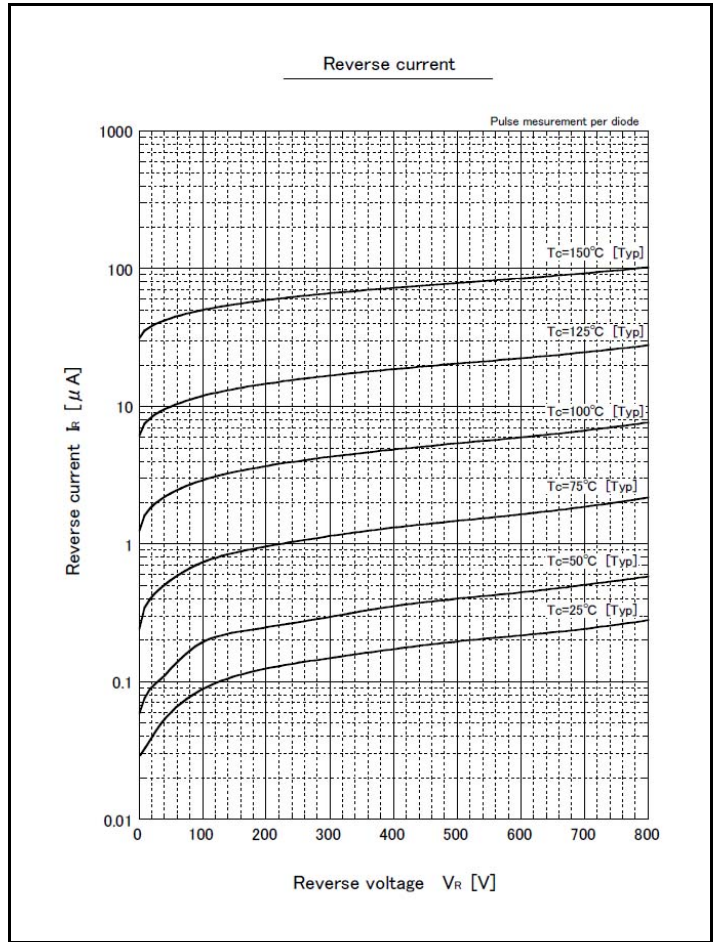
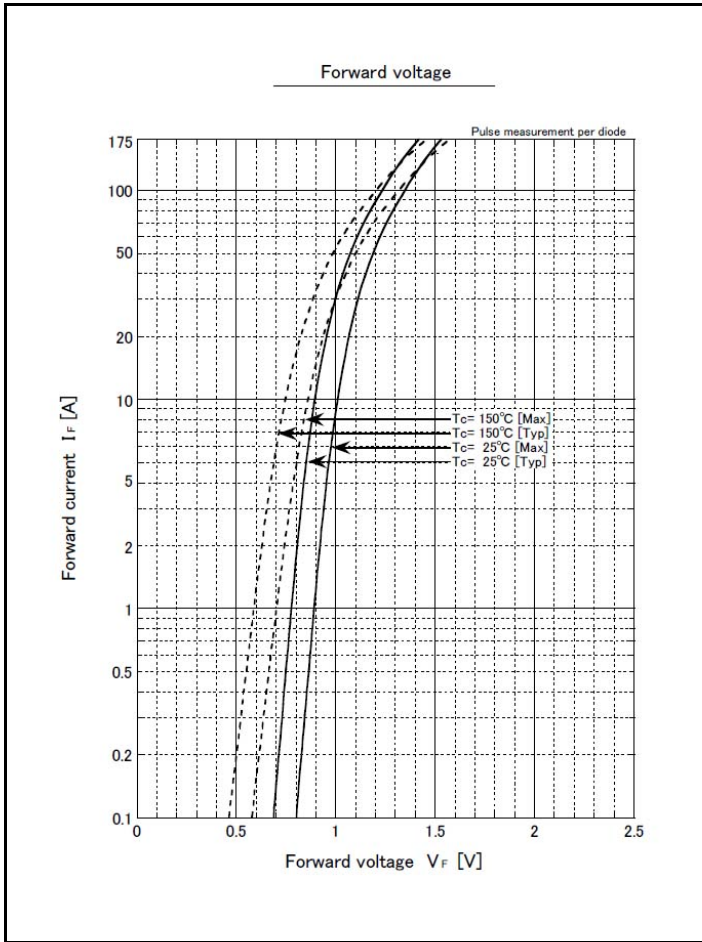
※ : See the original Specifications

**Electrical Characteristics** (unless otherwise specified : Tc=25°C)

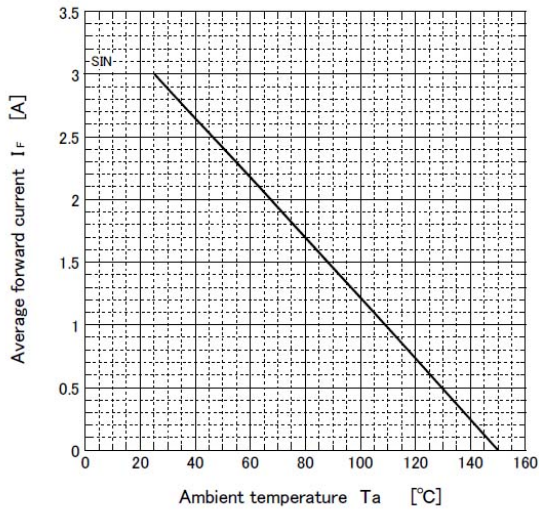
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	$V_F$	IF=17.5A, Pulse measurement, per diode			1.05	V
Reverse current	$I_R$	VR=800V, Pulse measurement, per diode			10	$\mu$ A
Reverse recovery time	trr	IF=0.1A, IR=0.1A, 0.1IRP, per diode			27000	ns
Thermal resistance	Rth(j-c)	Junction to case, With heatsink			0.8	°C/W
Thermal resistance	Rth(j-l)	Junction to lead, Without heatsink, On glass-epoxy substrate ※			5.2	°C/W
Thermal resistance	Rth(j-a)	Junction to ambient, Without heatsink, On glass-epoxy substrate ※			25	°C/W

※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS



Derating curve

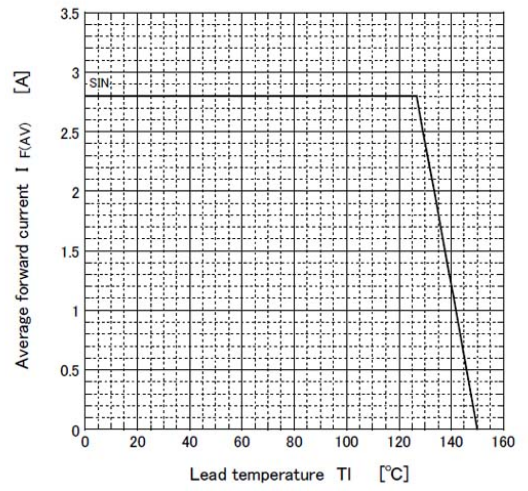


●  $V_R = 800V$   
R-load  
Free in air

● Substrate detail

Type	Glass-epoxy
Size	90mm × 150mm
Thickness	1mm
Conductor thickness	35 μm
Pattern area	1107mm <sup>2</sup>

Derating curve

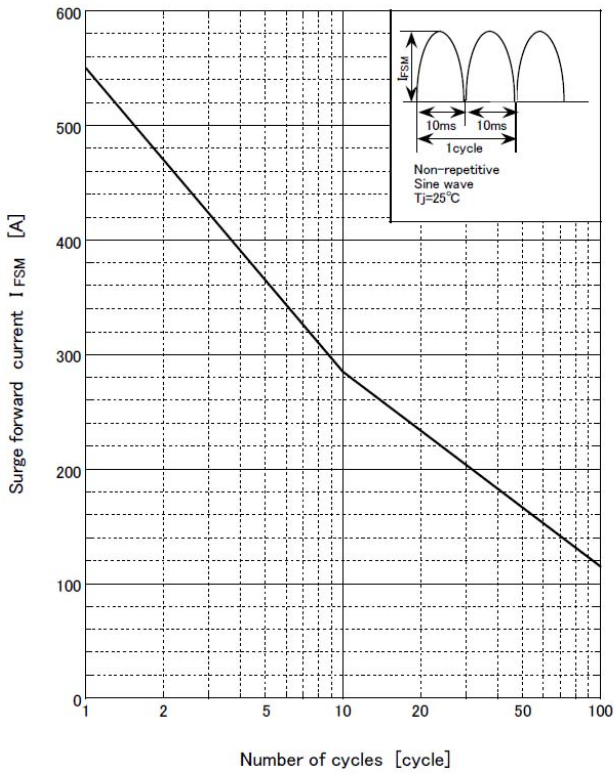


●  $V_R = 800V$   
R-load  
Free in air

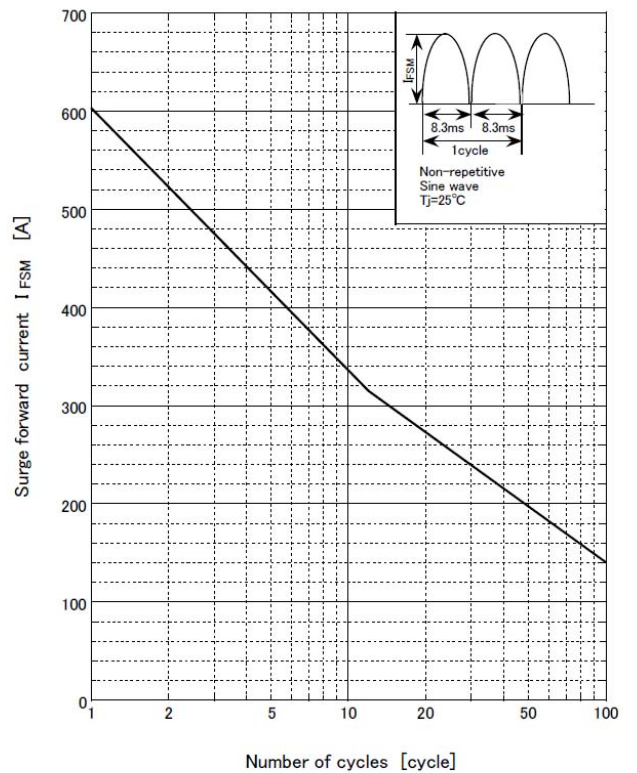
● Substrate detail

Type	Glass-epoxy
Size	90mm × 150mm
Thickness	1mm
Conductor thickness	35 μm
Pattern area	1107mm <sup>2</sup>

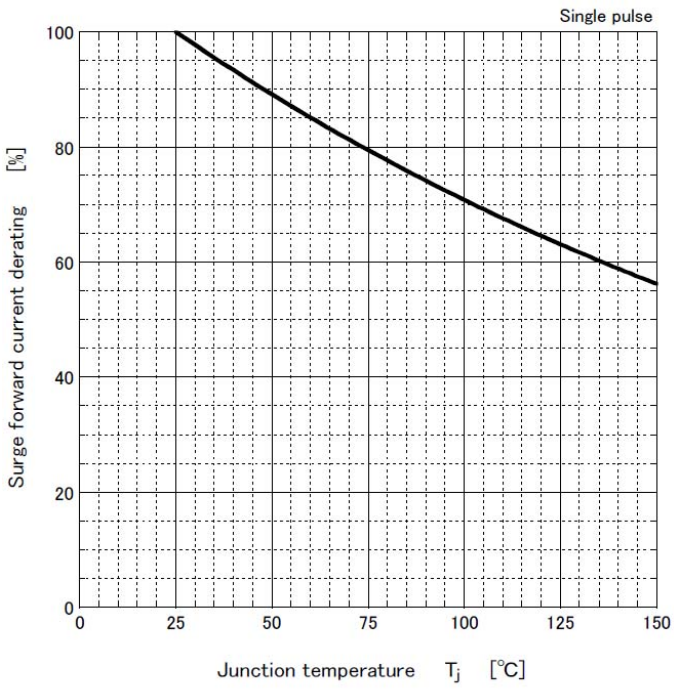
Surge forward current capability



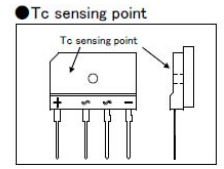
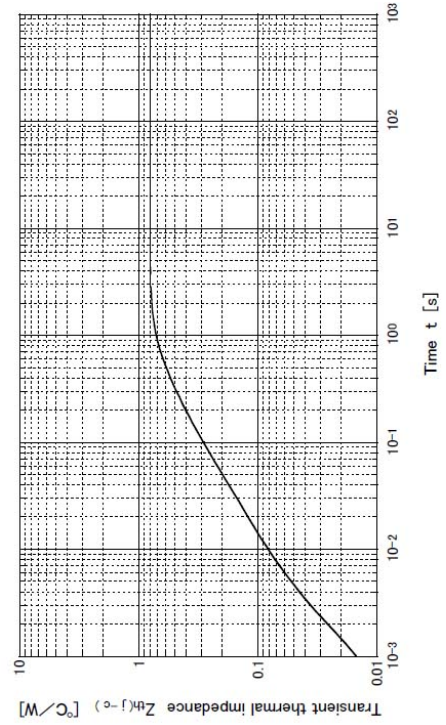
Surge forward current capability



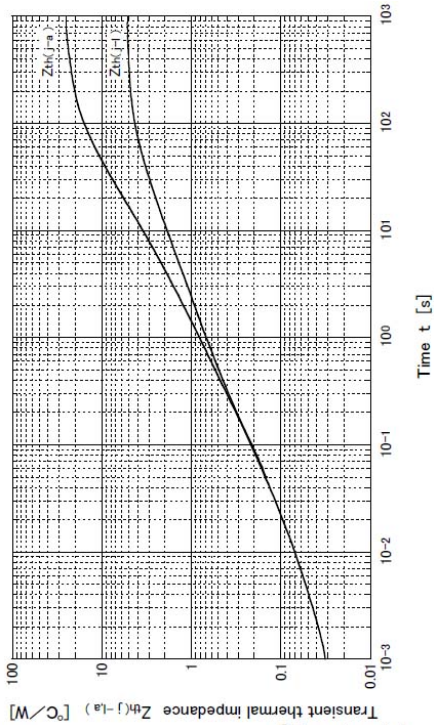
Surge forward current derating  
vs Junction temperature



Transient thermal impedance



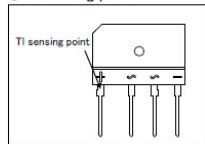
Transient thermal impedance



● Substrate detail

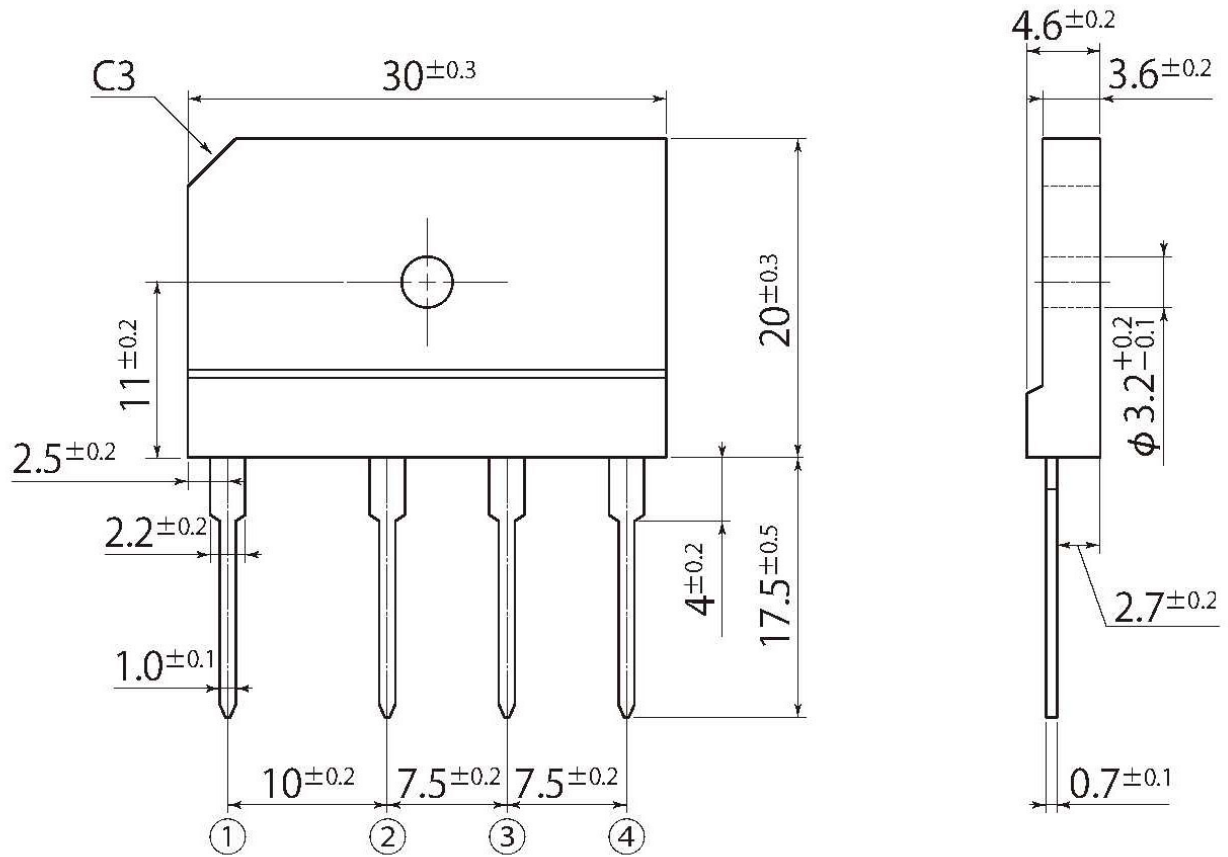
Type	Glass/epoxy
Size	90mm X 150mm
Thickness	1mm
Conductor thickness	35μm
Pattern area	1107mm <sup>2</sup>

● TI sensing point



D4

JEDEC Code	-
JEITA Code	-
House Name	5S



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